Fall 2018   MAT231 Modelling with DEs
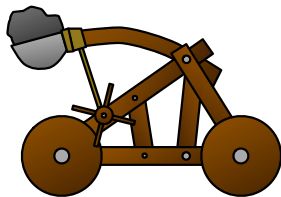
1.1 Basic Models

Let us model the altitude of a boulder thrown by a catapult!

1 Which basic Physics principle should we use?

   a Conservation of Angular Momentum

   b Newton's 2nd Law

   c Rate of Change = rate in − rate out

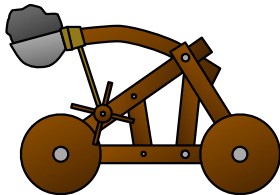   **d** Conservation of Linear Momentum

   e Conservation of Energy

1.1 Basic Models

We need to know:

2 Acceleration =

3 Force =

4 What do we know about the boulder at $t = 0$?